

Black Rhinoceros in Southern Africa

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Nearly exterminated in southern Africa in the 19th century, the black rhino is now making a come-back thanks to the efforts of the National Parks Boards and other authorities. Successful translocations have been achieved in three national parks, including the Kruger, and two reserves, and more are planned.

The black rhinoceros *Diceros bicornis*, an endangered species listed in the IUCN Red Data Book, has had a sad history in South Africa and South-West Africa/Namibia. Once it was widespread in suitable habitat throughout these territories (except the Highveld grasslands, the arid Kalahari regions and the Namib Desert); but in the 19th century it was exterminated over the greater part of its southern African range. The last one in the Cape Province was shot near Addo in December 1853;¹⁰ in the Orange Free State the last one had been shot in 1842.¹⁰ In the Transvaal a few animals survived in the Lowveld areas of the present day Kruger National Park; the last living one was seen in 1936, and it is certain that by 1945 the black rhinoceros was extinct in the province.⁸ In Natal small populations survived in the Umfolozi, Hluhluwe and Mkuzi Game Reserves and adjoining areas of Zululand, but numbers in 1930 were estimated at not more than 100.¹⁰ In SWA/Namibia, though isolated groups were still scattered around the country after 1900, the only viable populations were in the north-west corner of the territory in Kaokoland, Damaraland and the Otjovasandu area of what was to become the Etosha National Park.⁷

The strategy for conserving the black rhinoceros is similar in South Africa and SWA/Namibia: strict protection in existing game reserves or national parks; translocation of threatened animals to safe areas, and establishment of new populations in suitable areas. The map shows localities where black rhinoceros survived, or where they have been or will be introduced in the near future.

Natal

The conservation of the Zululand black rhinoceros *D.b.minor*² by the Natal Parks Game and Fish Preservation Board and their dedicated staff did not attract the sort of attention given to their more spectacular work in saving the white rhinoceros *Ceratotherium simum*. But it was equally important; indeed it is only thanks to their work that the black rhino survived at all in South Africa. By 1961 numbers had increased to 300 in the Hluhluwe Game Reserve alone.⁵ However, the incredibly high population density of 1.1 animals per sq km was probably excessive and a die-off of 15 per cent occurred over a four-month period in that year. To relieve local high densities a further 35 animals were removed from this reserve between 1961 and 1972, but the population continued to decline in a density dependent way, probably influenced by habitat changes resulting from other management procedures,⁵ chief of which was the removal of predominantly grazing animals from the area. This, it has been postulated,⁵ led to improved grassland conditions, giving rise to fires that were able to penetrate and reduce the size and density of the *Acacia* thickets which were the black rhino's optimum habitat. At present the Hluhluwe

population is considered static but subject to a further decline if the habitat continues to change to a more open wooded grassland. In the Umfolozi Game Reserve and the corridor of state land linking it with Hluhluwe black rhinos have increased slowly over the years, as has the population of the Mkuzi Game Reserve.

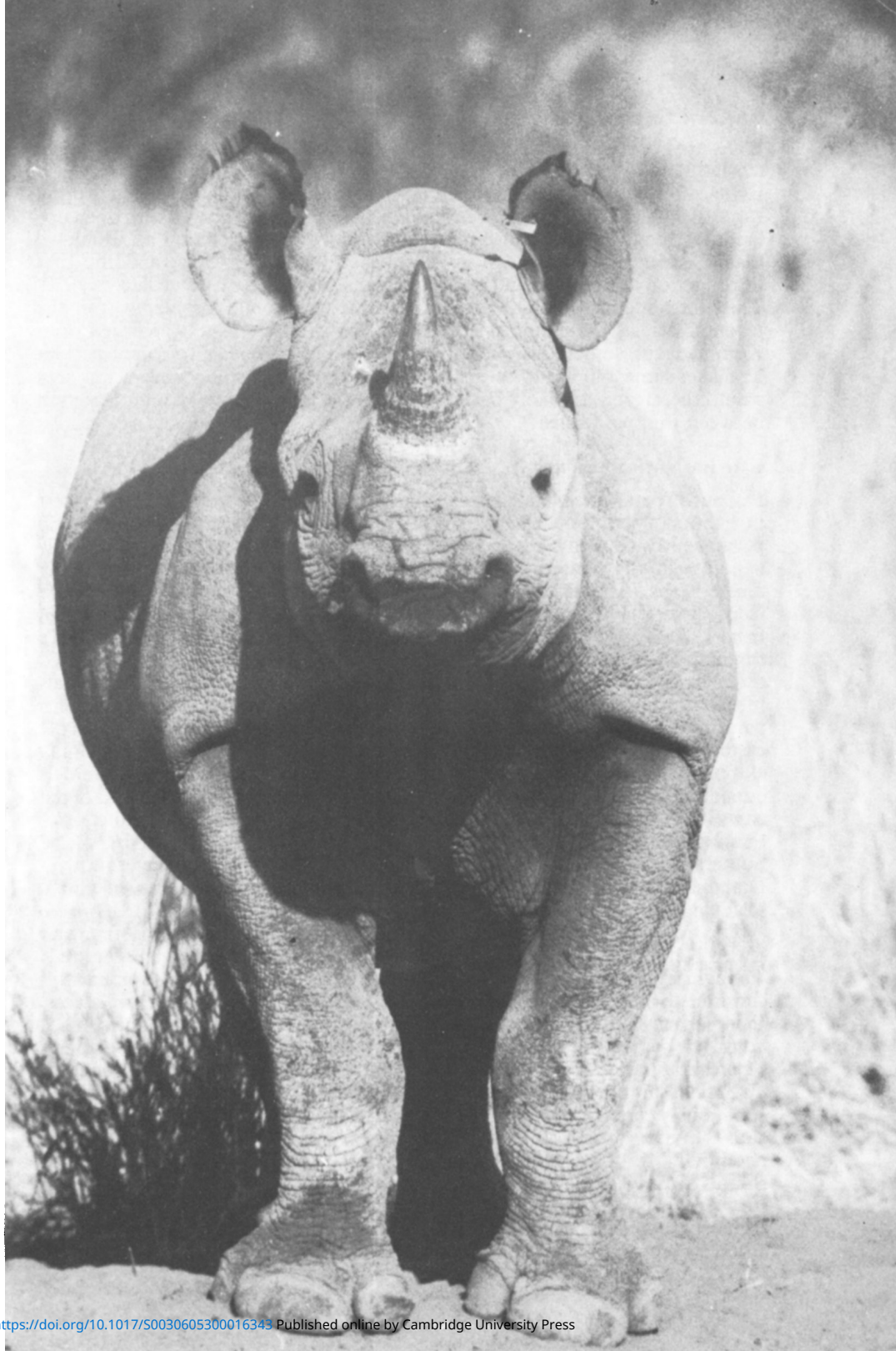
The translocation of black rhino to the Ndumu Game Reserve, where the species had been exterminated, was successfully carried out by the Natal Parks Board. Animals were taken from the established game reserves, as well as eight that were a threat to human life and property on tribal land. Recently the Board established another new population in the newly created iTala Nature Reserve in northern Natal.

Kruger National Park

In 1971 the long-cherished hope of the National Parks Board of South Africa to re-establish the black rhinoceros in the Kruger National Park was realised with the translocation of 10 males and 10 females from Hluhluwe, supplemented in September 1972 by a gift from Rhodesia of 12 animals from the Zambezi Valley. These were released in the area near Skukuza where the Natal animals had settled. Despite some losses—one cow died after a fight with a hippopotamus, another was mauled by lions, one bull died after injuring a leg and two young animals died of botulism—the animals settled down well and calves have been seen regularly. In September 1977 two more cows arrived from Zululand, bringing the total to 34. This population is now well established between Skukuza and Pretoriusskop, and numbers are estimated at about 45. As both parent populations are placed by all authorities in the same subspecies, *D. b. minor*,² there would appear to be no taxonomic objections to the mixing of the Rhodesian and Natal black rhinoceros (apart from objections to the mixing of the two gene pools).

Addo National Park

After an absence of more than 100 years from the Cape Province, two groups of black rhinoceros were introduced to the Addo Elephant National Park in 1961 (one bull, one cow) and 1962 (two bulls, three cows).⁴ However these animals came from the Kiboko area of Kenya and so are placed in the subspecies *D. b. michaeli*.² Their capture and transport to Addo was carried out most efficiently by Nick Carter,³ but their subsequent release into a small paddock was ill-conceived and resulted in fierce fighting and the deaths of three animals within three weeks.⁴ By 1977 twelve black rhino calves had been born at Addo, but four animals died as a direct consequence of their artificial living conditions. Release in June 1977 into a 4000-ha section of the park enclosed by the famous Armstrong elephant-proof fence relieved their crowded conditions but was unfortunately marred by a further tragedy when a cow and young calf were involved in an altercation with a group of Addo elephants and the calf died. At the end of September 1977 the National Parks Board released three black rhino bulls of the Zululand subspecies at Addo—a step that will be hotly debated by genetic conservationists and taxonomists for some time to come. They appear to have settled down well, and there have been no further conflicts with the elephants. There are now twelve at Addo, and with adequate space and food available their future at Addo seems assured. Whether in the future the mixing of the two subspecies will be held to be of great consequence remains to be seen. What is perhaps of greater importance now is to ensure that none of the progeny are allowed to contaminate pure *D. b. minor* populations.



Eastern Cape

Plans are at present well advanced for introducing black rhino to the Andries Vosloo Kudu Reserve in the eastern Cape, on the west bank of the Great Fish River, a reserve controlled by the Provincial authorities. One section covering some 3000 ha of rolling hills, dense thickets and forested gorges with open uplands—strongly reminiscent of the topography and vegetation of Hluhluwe Game Reserve—is being enclosed in a strong cable fence, and the first introduction of two bulls and two cows from Zululand is expected later in 1979. This introduction should pose no undue taxonomic problems (for the taxonomists) as the extinct Cape rhinoceros *D.b.bicornis* was recorded from Kommadagga some 120 km to the west, while *D.b.minor* was known from Transkei some 140 km to the east.⁹ The original black rhinoceros of this area would therefore very likely have fallen into the narrow zone of intergradation between the two forms.

Etosha National Park

In South West Africa/Namibia the black rhinoceros had probably come closest to extinction by 1966 when a census revealed that there were only 90 still permanently resident in the north-west corner of the territory, plus a few vagrants in the western Caprivi along the Kwando River which regularly crossed the Angola and Botswana borders.⁷ The Division of Nature Conservation and Tourism acted quickly, and in a well organised campaign from 1970 to 1972 captured 43 that were either threatened by poachers, posed a threat to farmers, or constituted isolated non-viable breeding units, and moved them to suitable habitats within the Etosha National Park.⁶ These animals settled down well and some have subsequently been moved from the western part of the park to suitable habitats around the historic fort at Namutoni on the eastern edge. While the black rhinoceros inside the Etosha Park are doing extremely well, with many calves and young animals recently seen, the animals outside are declining rapidly. The Kaokoveld rhinoceros, which, because of the complex political situation in South West Africa, fall outside the jurisdiction of the Nature Conservation Division, are particularly threatened by illegal hunters and there are probably no more than 20 left.¹² Further south, in Damaraland, the situation is little better with reports of poaching on a large scale and estimates of no more than 30 animals left.

The most recent estimates of black rhinoceros numbers in South Africa and SWA/Namibia are given in Table 1 and their distribution is shown in Figure 1. Though still considered locally endangered¹¹ it is likely that numbers will continue to increase and more populations will be established in suitable areas. It is perhaps unfortunate that most of the black rhinoceros in South Africa occur in provincial game reserves which lack the theoretical inviolability accorded to national parks, their status and boundaries being easily changed. The greatest immediate threats to the species in South Africa are the continuing agitation by certain groups for the deproclamation of the Mkuzi Game Reserve¹ and the uncertain future of the Ndumu Game Reserve which lies on a potentially troubled international boundary. In SWA/Namibia the black rhino's future inside the Etosha National Parks seems assured, but their survival in other areas is in jeopardy until that country's political and constitutional problems have been overcome and effective conservation laws can be enforced outside the national park.

Table 1 Summary of population estimates or counts of black rhinoceros (best available data)

Area	Estimate/count	Percentage of country total
<i>South Africa</i>		
Hluhluwe Game Reserve	199	41.5
Umfolozzi Game Reserve	60	12.5
Corridor	69	14.4
Mkuzi Game Reserve	60	12.5
Ndumu Game Reserve	25	5.2
iTala Nature Reserve	9	1.9
Makatini Flats	1	0.2
Addo Elephant National Park	12	2.5
Kruger National Park	45	9.4
Total	480	100.1
<i>South West Africa/Namibia</i>		
Etosha National Park	140	73.7
Kaokoland	20	10.5
Damaraland	30	15.8
Total	190	100.0

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The photograph on page 477 is by J. M. Hofmeyr.

Captive Breeding of Endangered Species

The third of the Fauna Preservation Society's series of World Conferences on the Breeding of Endangered Species in Captivity with a view to their eventual reintroduction into the wild will be held at San Diego, California, from November 12-15, 1979. The conference is co-sponsored by the Zoological Society of San Diego. The two previous meetings were at Jersey Zoo with the Jersey Wildlife Preservation Trust in 1972, and the London Zoo with the Zoological Society of London in 1976. The conference chairman is Dr Kurt Benirschke and the programme chairman is Dr Jim Dolan, both of San Diego's famous Wild Animal Park. The many distinguished speakers include Dr Michael Brambell, Director of Chester Zoo; George Archibald of the Crane Foundation in Wisconsin; Ray Erickson of the US Fish and Wildlife Service's endangered species breeding station at Patuxent, Maryland; Janet Kear of the Wildfowl Trust; Gerald Durrell, Hon. Director of Jersey Zoo; Bill Conway, Director of the New York Zoological Society; Tom Cade, Cornell University; and John Eisenberg, The Smithsonian Institution. Among the animals whose captive breeding is to be discussed are sea otters, lion-tailed macaques, Mauritius kestrels and pink pigeons, Rodrigues bats, Japanese crested ibis, Andean and James's flamingos, giant pandas and chimpanzees. Applications to Captive Breeding Conference, San Diego Zoo, PO Box 551, San Diego, California 92112, USA. Closing date, August 6.

Pampas Deer in Uruguay

The number of pampas deer *Ozotoceros bezoarticus* in Uruguay probably totals only about 1000, according to Dr John Jackson, and his co-workers in Uruguay, Pete Landa and Alfredo Langguth, after an assessment of all available information. The largest numbers are on the El Tapado estancia, but in February this was put up for sale in three lots, which might mean disaster for the population. An article by the three biologists describing the situation will appear in the next issue of 'Oryx'.

Sperm Oil Imports Drop

Britain imported 4,268,971 kg of sperm oil in 1978, compared with 5,196,250 kg in 1977, a drop equivalent to about 250 whales. The decline is mainly due to the increasing use of cheap synthetic substitutes, perfected after the US ban on whale imports, for lubricants in cutting tools, bread-slicing machines and automatic, gearboxes. Burmah Castrol, once the biggest importer in this field, stopped buying fresh sperm oil in May 1978, and now the largest single user of sperm oil is the leather industry, which still imports about one million kg a year.